

IN THE SPECIFICATION

Please amend the Title on page 1 as follows:

Please replace the paragraph beginning at page 5 line 11, with the following rewritten paragraph:

As the result, the present inventors investigated that the examination of the caries risk could be accurately carried out by using the PAc (361-386), which is the amino acid sequence, as the antigen, and measuring an antibody titer value of a secretory immunoglobulin antibody A (sIgA) secreted from a human oral cavity mucosa, which was working to inhibit the adhesion of the mutans streptococci to the tooth surface.

Please replace the paragraph beginning at page 5 line 20, with the following rewritten paragraph:

However, as for measuring the antibody titer value of the secretory immunoglobulin antibody A against the PAc (361-386) secreted in the saliva, an infant of less than about 6 years old not having a completed immune function could not be examined, and since a saliva secretory quantity was varied with persons, the measured antibody titer value of the secretory immunoglobulin antibody A could not be accurately reflected between a person having the much quantity of the saliva and a person having the little quantity of the saliva. Furthermore, there were also problems that said measuring could not be applied to a patient infected with xerostomia, who has the remarkably little salivary secretion quantity, and an aged person weakened in his salivary secretion.

Please replace the paragraph beginning at page 7 line 5, with the following rewritten paragraph:

Since a mechanism secreting the antibody against said PAc (361-386) naturally related to an immune system gene, the difference of the antibody titer value of the secretory immunoglobulin antibody A secreted in the saliva was determined with a specific genotype relating to the secretion of a human secretory immunoglobulin antibody A. Therefore, the present inventors investigated that it was possible to examine the caries risk by specifying an individual genotype, and if a human genotype was specified beforehand by high or low of the caries risk, that is, high or low of the antibody titer value of the secretory immunoglobulin antibody A secreted in the saliva, it was possible to carry out the method for examining the caries risk capable of targeting at all persons by only identifying the gene. Then, the present invention was completed.

Please replace the paragraph beginning at page 7 line 21, with the following rewritten paragraph:

The present invention is the method for examining the caries risk with the characteristic of identifying the genotype of DRB1* of a DR locus in a class II type of the HLA genes group. More particularly, the present invention is the method for examining the caries risk with the characteristics of identifying the genotype of DRB1* in the class II type of the HLA genes group, wherein the identified genotype is compared with caries risk, which is identified beforehand, derived from the antibody titer value of the secretory immunoglobulin A in the human saliva against antigen, in which a synthetic protein having an amino acid sequence composed of the following formula is used as ~~ast~~ the antigen.

Please replace the paragraph beginning at page 9 line 9, with the following rewritten paragraph:

According to the method for examining the caries risk of the present invention, first, cells of a subject are collected, and the DNA in said cells is extracted to specify the HLA genes group on the sixth chromosome monobrachius. The caries risk is evaluated, by comparing the specified HLA genes group with the HLA genes group having high (or low) antibody titer value of the secretory immunoglobulin antibody A secreted in the saliva against the PAc (361-386), which is produced beforehand by the investigation.

Please replace the paragraph beginning at page 10 line 17, with the following rewritten paragraph:

The caries risk is evaluated, by comparing the specified HLA genes group with the HLA genes group having high (or low) antibody titer value of the secretory immunoglobulin antibody A secreted in the saliva against the PAc (361-386), which is produced beforehand by the investigation. For example, in the genotypes having been identified now, as the genotype having the high caries risk, that is, having the low antibody titer value of the secretory immunoglobulin antibody A, the case of the genotype having DRB1*0101, DRB1*0405, DRB1*0803, DRB1*1302, DRB1*1502 and DRB1*0410 at one side of the dimer, has been identified. Moreover, as the genotype having the low caries risk, that is, having the high antibody titer value of the secretory immunoglobulin antibody A, the case of the genotype having DRB1*0403, DRB1*0406, DRB1*0401, DRB1*0802, DRB1*0901, DRB1*1202, DRB1*1401, DRB1*1405, DRB1*1501 and DRB1*1602 at one side of the dimer, has been identified. In addition, if the combinations of all dimers are solved by the future research, the caries risk can be evaluated more accurately.

Please replace the paragraph beginning at page 11 line 19, with the following rewritten paragraph:

As the method for measuring the antibody titer ~~value~~ of the secretory immunoglobulin antibody A being used in the method for examining the caries risk of the present invention, even if a conventional enzyme immunohistochemistry method, i.e., Enzyme Linked Immunosorbent Assay, which is referred to as "ELISA" hereinafter, being one of an antibody titer ~~value~~ measuring technique against the mutans streptococci, is used, sufficiently usable sensitivity can be obtained. However, the measurement sensitivity at the time of the determination can be increased by the technique being conventionally used for improving the sensitivity of the measured value obtained by the antigen antibody reaction, for example, the technique of reacting once the secretory immunoglobulin A in the saliva with a biotin anti-human immunoglobulin A etc. So, the technique based on the general antigen antibody reaction can be applied as it is. In addition to said technique, each technique of an immuno-chromatography, an immuno-concentration, and a latex agglutination etc. can be used suitably.

Please replace the paragraph beginning at page 12 line 16, with the following rewritten paragraph:

Figure 1 shows the results of measuring the antibody titers ~~values~~ of the immunoglobulin A in saliva of 5 subjects (A, B, C, D, E) against the PAc (361-386) with the ELISA.

Please replace the paragraph beginning at page 20 line 3, with the following rewritten paragraph:

The antibody titers ~~values~~ of the immunoglobulin A in the saliva of five subjects (A, B, C, D, E) against the PAc (361-386) were measured with the ELISA, and these results were shown in Figure 1. As the result, grouping was made into two, i.e., the high antibody titer

~~value~~ group (in this case, A, C, E) and the low antibody titer ~~value~~ group (in this case, B, D).

In addition, the accuracy of the method for examining the caries risk was identified between the actual quantity of the mutans streptococcus in the oral cavity and the groups of the antibody value being high and low.

Please replace the paragraph beginning at page 20 line 14, with the following rewritten paragraph:

The genotypes of HLA-DRB1* of each person were identified with the oral cavity mucosa cells of the above subjects (A, B, C, D, E) by the above process, and the correlation between the genotypes and the antibody titer ~~value~~ of the secretory immunoglobulin A in the saliva against the PAc (361-386) was identified. These results were shown Table 1. By setting such condition, the genotypes respectively corresponding to the above two groups, i. e., the high antibody titer ~~value~~ group (A, C, E) and the low antibody titer ~~value~~ group (B, D), was identified beforehand by using a plurality of subjects as the sample. In addition, it was identified that the genotype of HLA-DRB1* was correlated with the antibody titer ~~value~~.

Please replace Table 1 on page 21 with the following:

Antibody Value <u>Titer</u> (O.D. 405 nm)	Subjects	Genotype of DRB*1 in Class II Type of HLA Gene Group
High	A	0403, 0405
	C	1501, 0410
	E	1602, 1405
Low	B	0101, 1502
	D	0803, 0803

Please replace the paragraph beginning at page 21 line 5, with the following rewritten paragraph:

As for the actual method for examining the caries risk, when the above-described PAc (361-386) being identified beforehand is used as the antigen, the caries risk is examined, by comparing the genotype relating to high or low of the caries risk derived from high or low of the antibody titer ~~value~~ of the secretory immunoglobulin A in the human saliva against the antigen, with the genotype identified with the subject.